

**U.S. Department of the Interior
Bureau of Land Management
Kremmling Field Office
P O Box 68
Kremmling, CO 80459**

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-LLCON02000-2012-0021-EA

PROJECT NAME: EOG Application for Permit to Drill (APD) Peterson Ridge 01-20H

LEGAL DESCRIPTION: T. 8 N., R. 80 W., Sec. 20 SWSE, 6th P.M.;
Jackson County

KREMMLING FIELD OFFICE, KREMMLING, COLORADO

CASEFILE/PROJECT NUMBER: COC-65607

APPLICANTS: EOG Resources, Inc. (EOG)

Background/Introduction: The Federal mineral estate administered by the Bureau of Land Management (BLM) as part of its mineral leasing program provides minerals, including fossil fuels, for the benefit and use of the American public and encourages development of domestic oil and gas reserves to reduce dependence on foreign energy supplies. Mineral development is supported by the Mineral Leasing Act (1920 30 USC 181 et. seq.) and the Federal Land Policy and Management Act (FLPMA).

An Application for Permit to Drill (APD) was received as follows, with an on-site review of the proposed well site occurring as soon as weather and schedules permitted:

- Peterson Ridge 01-20H APD was received on September 1, 2011, on-site review occurred on October 4, 2011.

On-site review was attended by BLM Kremmling Field Office (KFO) staff specialists Bill Wyatt, Archeologist; Megan McGuire, Wildlife Biologist; Hannah Schechter, Visual Resources; and Kelly Hodgson; Natural Resource Specialist. Robert Wilkins and Jennifer Yu represented EOG, along with EOG contracted surveyor's Loren Shanks and Kevin Haas. Liza Rossi from Colorado Parks and Wildlife was also in attendance. Access and road alignment, pad location, likelihood of cultural resource concerns and wildlife issues were discussed at the on-site meeting.

On January 11, 2012 the components required for a "technically" complete APD package were adequately met for the BLM to begin reviewing and processing the application. However, EOG was informed that a final decision on the approval or denial of the permit would be deferred until "administrative" components of the APD package were completed (National Historic

Preservation Act (NHPA) and National Environmental Policy Act (NEPA) requirements were met). On August 20, 2012, BLM received a cultural report for the Peterson Ridge 01-20H area of affect; on September 20, 2012, following consultation with the State Historic Preservation Office, the requirements of the NHPA were adequately met for BLM to complete the review and processing of EOG's application through NEPA.

PURPOSE AND NEED FOR THE ACTION: The BLM received an APD for the Peterson Ridge 01-20H from EOG for a well location on federal surface estate to explore for and develop oil and gas reserves in the United States. Lease development was essentially guaranteed when the leases were issued [Mineral Leasing Act of 1920, 30 USC 181 et. seq., as amended, and the Federal Land Policy and Management Act (FLPMA)]. Federal leases are issued for an initial term of 10-years and are valid indefinitely as long as capability to produce in paying quantities is maintained, either on a leasehold basis or on a unit basis (if the lease is contained in an approved oil/gas unit).

The BLM is preparing the Environmental Assessment (EA) to address potential impacts associated with approval of EOG's APD. If approved, it would further BLM's objective contained in the 1991 Oil and Gas Leasing and Development Environmental Impact Statement/Record of Decision (EIS/ROD) to: "Facilitate orderly, economic, and environmentally-sound exploration and development of oil and gas resources using balanced multiple-use management.

It is the intent of the applicant to exercise their lease rights to occupy as much of the lease surface as is reasonable for the exploration and extraction of oil and gas.

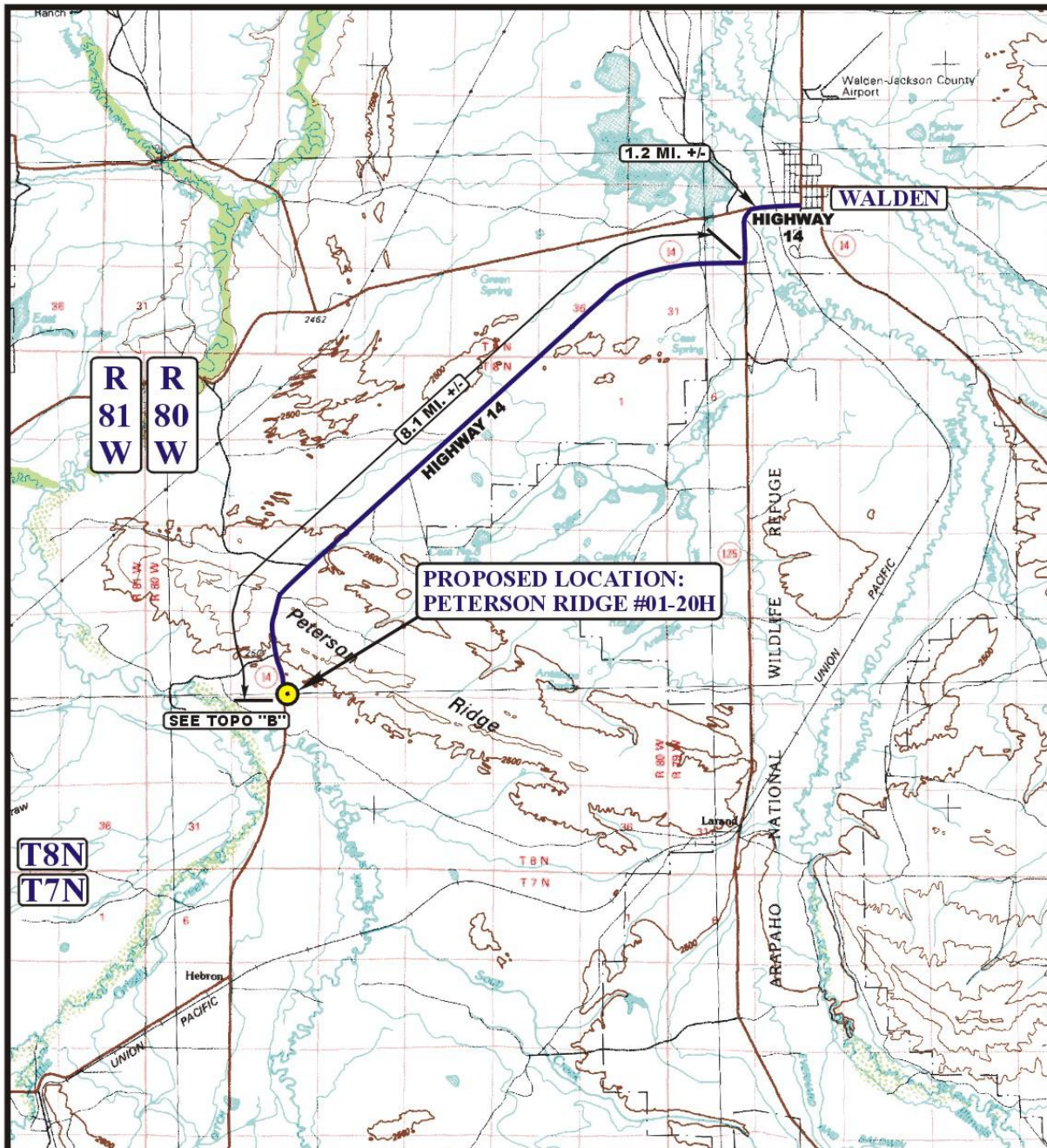
DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION: EOG Resources, Inc. (EOG) proposes to drill one new conventional oil/gas well in Jackson County, Colorado in 2012. The proposed well location would be as follows;

- **Peterson Ridge 01-20H** well would be on BLM-administered surface and mineral estate, located in T. 8 N., R. 80 W., Sec. 20 (SWSE).

See map below.

The standard Conditions of Approval are incorporated as part of the Proposed Action and included as Attachment #1. The design features developed during the on-site inspection are described below, and are incorporated as part of the Proposed Action. Additionally, the surface-use plan provided by EOG is incorporated by reference as part of the Proposed Action. Surface disturbance expected from developing the well is shown in the following chart, based on well pad dimensions and new road construction.



LEGEND:

● PROPOSED LOCATION



EOG RESOURCES, INC.

PETERSON RIDGE #01-20H
SECTION 20, T8N, R80W, 6th P.M.
219' FSL 1820' FEL



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

ACCESS ROAD
MAP

01 12 11
 MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: J.J. REVISED: 00-00-00



Well	Well pad Disturbance (Acres)	Max Vertical Cut (ft.)	New Road disturbance (Lin. ft.)	Road Disturbance area (Acres)	Total site disturbance (Acres)	Anticipated Water Depletion plus dust abatement
Peterson Ridge 01-20H	3.9	12'9	548	0.38	4.28	5,000 barrels (bbls)

Design features of the Proposed Action (as per the Surface Use Plan (SUP) submitted by EOG) for the Peterson Ridge 01-20H well site (SUP available at the Kremmling Field Office):

- Well pad dimensions would be approximately 400' x 305'.
- The new access road would have a 40' wide sub-grade with an 18' wide crowned dirt driving surface, constructed with a 4:1 slope for ditches, maintained, and improved as necessary. One 18" CMP would be installed, road drainage crossings would be installed as necessary to provide proper drainage along the access road. Maximum grade of the new road would be 8%.
- A cattle guard would be installed where the access road leaves Highway 14.
- In the event that commercial production is established, the access road would be surfaced to an average minimum depth (after compaction) of four inches with two inch minus pit run gravel for all-weather access. Gravel used would be obtained from a contractor having a permitted source of materials within the general area. The new road would remain until the well is abandoned, at which time it would be obliterated and the road and pad area reclaimed. Topsoil must be of an adequate volume to spread to a minimum of 6" depth at final reclamation.
- Pad cut and fill slopes would be approximately 1.5:1.
- All permanent above-ground structures constructed or installed on location and not subject to safety requirements would be painted Shale Green.
- The well pad would not have a reserve pit, but be a "closed loop" system.
- The closed loop system would be utilized during drilling operations and would be fenced on three sides; the fourth side would be fenced after the drilling rig moves off location. Drill cuttings would be contained in a dry cuttings pit, which would be lined with a 16-mil or thicker liner. Drilling and completion fluids would be contained in above ground tanks, and then hauled to a Department of Environmental Quality (DEQ) authorized disposal site.
- All human waste, garbage and non-flammable waste materials would be contained and disposed of at a state-approved disposal site.
- EOG would maintain a file of all MSDS for all chemicals, compounds and/or substances which are used during the course of construction, drilling, completion and production operations for the proposed well.
- EOG would maintain an Emergency Response Plan which includes notifying the BLM of all reportable spills of oil, produced water and hazardous substances.

- Fresh water would be obtained from an approved municipal source in Walden and/or from existing water rights on Evans and Haworth lands (private estate). EOG estimates 5,000 barrels (bbls) of North Platte River Basin water would be required for drilling.
- Interim reclamation of the location, road, and dry cuttings pit would be done within six months after completion or plugging operations are finished (weather and wildlife stipulations permitting). Dry cuttings would be tested and cleared to then be backfilled and buried on-site in the cuttings pit. The pit would then be backfilled with no less than five feet of soil material and would be mounded over to allow for settling of the soil.
- All disturbed, unused areas would be seeded. If drilled, the drill would be equipped with a depth regulator and seed would be planted between one-quarter and one-half inch deep. If broadcasted, the rate would be doubled (see attached seed mixture).
- Monitoring would be conducted by a qualified Operator representative (in coordination with the BLM) following initial rehabilitation work. Monitoring areas would be re-examined at the end of the first growing season. Results would be documented in a report to the BLM.
- Construction activities would not be conducted when soils are frozen, saturated, or during periods when watershed damages are likely to occur.
- If the proposed access road and well pad are dry during construction, drilling and completion activities, then water would be applied to help facilitate soil compaction and to minimize soil loss as a result of wind erosion.
- In order to avoid impacts to nesting Greater sage-grouse and migratory birds no operations would occur between March 1 and July 15.
- Weeds would be controlled by EOG on disturbed areas within the exterior limits of the access road and well pad. Approval would be obtained from the Authorized Officer prior to use of pesticides.

No Action Alternative: The No Action Alternative would deny EOG the proposed well-site development and the associated access road.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):
The Proposed Action is subject to the following plan:

Name of Plan: Kremmling Resource Management Plan, Record of Decision (ROD)

Date Approved: December 19, 1984 (Updated June 1999), and as amended by Record of Decision on December 5, 1991 as described in the Colorado Oil and Gas Leasing and Development Final Environmental Impact Statement (O&G EIS).

Decision Number/Page: ROD (map 3, p. 14)

Decision Language: To facilitate orderly, economic and environmentally sound exploration and development of oil and gas resources using balanced multiple-use management (ROD, p.11). Important wildlife habitat will be protected with the use of no surface occupancy, timing limitations or controlled surface use stipulations and /or lease notices on oil and gas leases, and conditions of approval (COA) on permits (ROD, p. 3).

Standards for Public Land Health: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

Standard	Definition/Statement
#1 Upland Soils	Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.
#2 Riparian Systems	Riparian systems associated with both running and standing water, function properly and have the ability to recover from major surface disturbances such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.
#3 Plant and Animal Communities	Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.
#4 Threatened and Endangered Species	Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.
#5 Water Quality	The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado. Water Quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation

	requirements set forth under State law as found in (5 CCR 1002-8), as required by Section 303(c) of the Clean Water Act.
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Because a standard exists for these five categories, a finding must be made for each of them in the environmental analysis. These findings are located in specific elements below or in the Interdisciplinary Team Analysis Review Record and Checklist (IDT-RRC) (Appendix 1).

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

AIR QUALITY

Affected Environment: Air quality in the North Park area is generally good, with some winter inversions in the center of the area around Walden and along river valleys. The North Park area is surrounded by several Class I Air Quality Areas (i.e. areas requiring the most stringent air pollution controls). Prevailing winds in the area are from the west-southwest. Currently most of the existing operating wells are south of the proposed location or in the McCallum oil field. The wells to the south are flaring gas.

Environmental Consequences: The Proposed Action would result in localized short-term increases in carbon monoxide, nitrogen dioxide, ozone, and sulfur dioxide concentrations, but well below applicable ambient air quality standards. Hazardous air pollutant concentrations would be well below standards and the related short and long term cancer risks to well rig operators and nearby residents would be below significance levels. Minor adverse impacts to air quality would result in the immediate vicinity of the well development. The proposed pad location would result in a short access road (548 feet) from the paved highway. Using directional drilling allows the pad to be located on relatively level ground and near the highway, reducing the amount of construction and production emissions (PM_{2.5}, PM₁₀, vehicle exhaust). The use of a closed loop system also eliminates the evaporative emissions from open pits. The flaring of gas does result in VOC and CH₄ emissions. Hauling the produced waters and “frac” fluids to Craig also results in vehicle exhaust from the 100 mile trip. Until additional infrastructure exists in the North Park area, however, a more green completion is considered infeasible. The oil and gas development would occur approximately eight miles south of Walden and air quality impacts would not affect town residents or visitors.

The well would be located approximately one half mile north of “Peterson Ranch”, and would not be expected to be impacted by most well activity. The proposed well would be located on the southern flank of Peterson Ridge, while the ranch is located downslope along an abandoned terrace above Grizzly Creek. Prevailing winds would generally carry emissions away from the ranch. At the current well density, the well would not be expected to produce sufficient concentrations even in the low lying river bottoms to impact these ranches.

Construction of the pad and road would create some fugitive dust, depending on the soil moisture and weather at the time. The project proponent plans on using water to control emissions when necessary. The small amount of dust and its short duration would not impact air quality in the

area. Surfacing the road and reclaiming the portion of the pad not needed for production would help reduce dust emissions from the location.

Under the No Action Alternative, there would not be a well or associated construction and additional traffic. Air quality would not be affected.

Mitigation: None

THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes a finding on Standard 4)

Affected Environment: The Proposed Action is located within the North Platte River basin, which is tributary to the Platte River System. The United States Fish and Wildlife Service (FWS) has determined that any water depletion within the Platte River jeopardizes the continued existence of one or more federally-listed threatened or endangered species and adversely modifies or destroys designated and proposed critical habitat. Depletions may affect and are likely to adversely affect the whooping crane, the interior least tern, the piping plover, the western prairie fringed orchid, and the pallid sturgeon in Nebraska.

The proposed well site would be located in habitat occupied by Greater sage-grouse, a BLM designated sensitive species. While sage-grouse occupy the project area on a yearlong basis, the area is especially important as nesting and brood rearing for sage-grouse. Three sage-grouse breeding complexes (referred to as leks) are located within four miles of the proposed well. The sagebrush habitat adjoining the leks provides hiding and nesting cover for sage-grouse during the breeding season. The area is also identified as preliminary priority habitat for sage-grouse.

No other threatened, endangered or sensitive species are known to inhabit the proposed project area.

Environmental Consequences: The Platte River Recovery Implementation Program (PRRIP), established in 2006, is implementing actions designed to assist in the conservation and recovery of the target species and their associated habitats along the central and lower Platte River in Nebraska through a basin-wide cooperative approach agreed to by the States of Colorado, Nebraska, and Wyoming and the U.S. Secretary of the Interior. A programmatic biological opinion was completed on June 16, 2006, that covers new depletions, and in 2009, Jackson County joined the South Platte Water-Related Activities Program (SPWRAP) for ESA coverage under the PRRIP. Jackson County's membership covers agricultural and municipal depletions within the county. The proposed well is estimated to require 5,000 barrels of water which would be about 0.48 acre-ft. of water. The operator would secure private water or municipal water to use for the well. If the proponent uses private water, it is the proponent's responsibility to insure they are not injuring any senior water right and that the decreed use includes industrial uses.

Since vegetative loss from the proposed well site development would occur, a small amount of sage-grouse nesting habitat would be impacted by the proposed project. Most of this habitat would be restored when the well site pads are successfully reclaimed with native vegetation.

In the No Action Alternative, if the application was denied, then this depletion would not occur. If the proponent would have leased water otherwise used for irrigation, then there would still be historic agricultural depletion. Sage grouse habitat would not be impacted.

Mitigation: None

WASTES- HAZARDOUS OR SOLID

Affected Environment: Some potentially hazardous materials would be used during well drilling and maintenance. In addition, solid waste would be generated during the proposed activities.

According to 29 CFR 1910.1200(g), the oil and gas operator is to maintain a file containing Material Safety Sheets (MSDS) for all chemicals, compounds, and/or substances which are utilized during the course of construction, drilling, completion, and production operations of this project. This file is to be available at all times employees are present at the site. Hazardous materials that may be present at the site include drilling mud and cementing products that are primarily inhalation hazards. Flammable or combustible motor fuels would be present. Proprietary materials necessary for well completion and stimulation such as acids and corrosives are often used. Human solid and liquid wastes would be generated primarily during the construction and drilling phases of the project.

Environmental Consequences: There would be no direct, indirect, or cumulative impacts from the Proposed Action. However, this is dependent upon responsible use of chemicals and immediate containment and adequate cleanup in the event of a release. Consequences would be dependent on the volume and nature of the material released. In most situations involving hazardous materials, there are ways to remediate the area that has been contaminated.

In the No Action Alternative, if the application were denied, there would be no hazardous materials used and released.

Mitigation: None

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The proposed well and road are within the Grizzly Creek 5th order watershed, within the North Platte River Basin. The state classifies Grizzly Creek for coldwater class 1 aquatic life, water supply, agriculture, and primary contact recreation. Grizzly Creek is on the Monitoring and Evaluation List for possible water quality impairment for aquatic life uses. The Monitoring and Evaluation List identifies water bodies where there is reason to suspect water quality problems, but there is also uncertainty regarding one or more factors, such as the representative nature of the data. Water bodies that are impaired, but it is unclear whether the cause of impairment is attributable to pollutants as opposed to pollution, are also placed on the Monitoring and Evaluation List. In the past, sediment concerns have been identified as a potential problem in Grizzly Creek. The BLM has limited segments of Grizzly Creek, located upstream of the proposed well.

Ground water information is limited in the area. There are two private wells in the state's records that are located less than a half mile from the proposed well. One stockwater well is located in the SW1/4NE1/4 of section 29. The well's total depth is 95 feet, with a static water level of 44 feet. The well's reported location is in the uplands on BLM, and if correct, the well would appear to be getting water from a sandstone layer in the Coalmont formation. The other well is located in the SE1/4NW1/4 of section 29 and is also a stockwater well. The total depth is reported at 140 feet. Despite this well's depth, it appears to be located in the floodplain between Grizzly and Little Grizzly Creeks. Most water wells in North Park are associated with the alluvial valleys and are shallow in depth. The bottom of the drill hole is actually planned for the north side of Peterson Ridge, and would be approximately 1,800 feet west of the BLM's Peterson Well. Peterson Ridge is a major syncline in the North Park basin, and the bottom of the hole would be located near the bottom of the syncline. The Peterson Well is approximately 180 feet deep, while the proposed well would be 6,443 feet deeper.

Environmental Consequences: A review of the proposed pad and road's runoff pathways was done, and the pathway is intercepted by the highway berm just southwest of the pad. A culvert then carries any runoff to the west under the highway and to an ephemeral drainage that travels approximately 2,000 feet to the south to Grizzly Creek. The channel is downcut as it leaves the BLM. The proposed development utilizes best management practices to reduce soil erosion, and the amount of runoff from the pad should be minimized and unlikely to be measurable in the drainage, much less in Grizzly Creek.

The proposed pad and road would disturb more than one acre and would require a stormwater permit (or waiver) from the state of Colorado. It is the applicant's responsibility to obtain the permit and to implement all required best management practices to protect water quality and reduce nonpoint source pollution.

Ground water quality protection is reviewed by the Little Snake Field Office to ensure drilling, casing, and production procedures adhere to state and federal laws protecting ground water quality. The proposed well would be a closed loop system and only dry cuttings would be stored on site. Produced water and any fracture stimulation fluids would be stored in above ground tanks and hauled off site. This would further ensure that no ground water contamination occurs.

In the No Action Alternative, there would be no new surface disturbance to construct a road and a pad. Existing water quality would not be impacted by any increased sediment loading to the stream. Ground water quality would also be unaffected.

Mitigation: None

SOILS

Affected Environment: Soil information is from the Jackson County Soil Survey, which is not intended for use on a site specific four acre parcel. It does give an indication of the general soils in the vicinity of the proposed site. The well location and road are mapped as occurring in sandy loam soils, with topsoil depths that range from six to ten inches. The pad location's western half would be located on a fan draining to the southwest. This area appears to receive more runoff and soil deposition, resulting in denser sagebrush stands. The proposed construction

would use a diversion ditch to intercept the runoff, and route it south into an existing highway ditch outside the pad's east boundary. The more eastern portion of the disturbance is nearer the flank of Peterson Ridge and would be more likely to be in a Tealson-Rock land association, where the Tealson sandy loams have soft sandstone within two feet from the surface. These soils have little tolerance for erosion without a loss in fertility, and are highly wind erodible. Plant available moisture levels tend to be low.

Environmental Consequences: The pads and roads are proposed in areas of gentle to moderately gentle (0-8%) slopes, on soils that have moderate to high permeability. The northeast corner of the proposed pad would have approximately 13 feet of cut and is located in soils that could be more difficult to revegetate due to the droughty soil and wind erosion. The project proponent would monitor the reclaimed areas and take additional measures to insure adequate vegetative cover. Perennial vegetative cover would be at least as dense as adjacent undisturbed areas to be deemed adequate.

In the No Action Alternative, if the application was denied, soils would not be impacted and topsoil would not be removed. No new road would be built and existing soil conditions would be expected to continue.

Mitigation: None

VEGETATION (includes a finding on Standard 3)

Affected Environment: Allotment # 07081 (Peterson Ridge) is comprised of a mixture of sagebrush with an understory of grasses. Big sagebrush (*Artemisia tridentata*) is the dominant shrub with minor amounts of antelope bitterbrush (*Purshia tridentata*), serviceberry (*Amelanchier alnifolia*), rabbitbrush (*Chrysothamnus* spp), and snowberry (*Symphoricarpos* spp). Grasses and forbs make up the majority of the forage available to livestock and wildlife. Prevalent grasses include bluebunch wheatgrass (*Pseudoroegneria spicata*), pine needlegrass (*Stipa pinetorum*), needle-and-thread (*Hesperostipa comata*), Indian ricegrass (*Achnatherum hymenoides*), western wheatgrass (*Pascopyrum smithii*), and bluegrasses (*Poa* spp). Forbs that are found include buckwheat (*Eriogonum* spp), rose pussytoes (*Antennaria rosea*), fringed sage (*Artemisia frigida*), chiming bells (*Mertensia* spp), penstemon (*Penstemon* spp), lupine (*Lupinus* spp), and milkvetch (*Astragalus* spp), among others. The forb component can vary greatly in species composition and production from year to year depending on precipitation timing and amounts.

Environmental Consequences: Under the Proposed Action, a total of about 4.28 acres would be disturbed. There would be direct impacts in the form of vegetation loss as a result of the Proposed Action. However, with the proposed reclamation utilizing a native species seed mix, there would be minimal indirect and cumulative effects to the area's vegetation as a result of the Proposed Action.

In the No Action Alternative, vegetation would not be disturbed.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Allotment # 07081 was assessed for standards in 2012, and was meeting this standard.

Mitigation: None

NOISE

Affected Environment: Sound levels in the project area would vary greatly, depending on proximity to existing residences, roadways, or other sources. These sound levels would fluctuate with variations in weather conditions including temperature, wind, humidity, and the general topography of the area. No background noise studies have been conducted, but the project area is located near Highway 14, with noise disturbance already present.

Environmental Consequences: There would be a short-term increase in noise levels in the project area while drilling activities occur. The distance to existing residences, the temporary nature of the drilling noise, and the use of quiet electric motors and well lubricated pumpjacks would limit any harmful effects of noise occurring under the Proposed Action.

In the No Action Alternative, if all applications were denied, the noise level would not increase. If one or more of the applications were denied, there would be less of an increase in noise level.

Mitigation: None

CUMULATIVE IMPACTS SUMMARY:

The geographic scope for the cumulative impact analysis is Jackson County. The 1991 Colorado Oil and Gas Leasing Final Environmental Impact Statement (O&G EIS) forecasted, for Kremmling Field Office, a total of 225 wells, of which 108 development and wildcat wells would be drilled on BLM lands (Appendix B, B20 & 21). Cumulative impacts for this forecasted development were analyzed in the O&G EIS based upon oil and gas surface disturbance totaling 2044 acres (Appendix B-2).

In regards to past actions regarding oil and gas activity, oil and gas was first discovered in northeastern Jackson County in 1926 by Continental Oil Company. This discovery marked the beginning of oil and gas development in the North McCallum Field. In 1952, oil was discovered in the Coalmont area southwest of Walden. Since that time, 13 fields have been discovered and developed, all in the North Park (Jackson County) area. Within these 13 fields, approximately 475 wells have been completed and approximately 50% of these wells were completed as dry holes.

In regards to present actions, there has been recent interest in the Coalmont Niabrara formation in southern Jackson County. According to the Colorado Oil and Gas Conservation Commission (COGCC) there are currently nine approved drilling permits for Jackson County, at least one of which has already been drilled; six of the wells are located on private surface and three are on federal surface.

In regards to future actions, per COGCC there is approximately one additional pending well currently planned for development within Jackson County. When added to the impacts of all of

the other actions in Jackson County, the cumulative impacts from this proposal are well within the 1% cumulative surface impacts projected for the Resource Area in the O&G EIS.

PERSONS / AGENCIES CONSULTED: No comments were received from the tribes (see attachment for Native American tribe list). The proposed project was listed on the Kremmling Field Office internet NEPA register and NEPA public room board. No comments were received from the public.

INTERDISCIPLINARY REVIEW: See IDT-RRC in Appendix 1.

ATTACHMENTS:

- 1). Standard Conditions of Approval
- 2). Seed mix

APPENDICES:

Appendix 1 – Interdisciplinary Team Analysis Review Record and Checklist
Appendix 2 – Native American Tribe List

**U.S. Department of the Interior
Bureau of Land Management
Kremmling Field Office,
P O Box 68
Kremmling, CO 80459**

**Finding of No Significant Impact (FONSI)
DOI-BLM-CON02000-2012-0021-EA**

BACKGROUND

EOG Resources, Inc. (EOG) proposes to drill one new conventional oil/gas well in Jackson County, Colorado in 2012. The proposed well location would be as follows;

- **Peterson Ridge 01-20H** well would be on BLM-administered surface and mineral estate, located in T. 8 N., R. 80 W., Sec. 20 (SWSE).

FINDING OF NO SIGNIFICANT IMPACT

Based upon a review of the EA and the supporting documents, I have determined that the Proposed Action is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the Kremmling Resource Management Plan (RMP), Record of Decision (ROD) December 19, 1984; Updated February 1999. Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

Context

The project is a site-specific action directly involving BLM administered public lands that do not in and of itself have international, national, regional, or state-wide importance.

Intensity

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this Proposed Action:

1. Impacts that may be both beneficial and adverse.

There would be soil and vegetative loss during development, but a good reclamation plan would mitigate these losses. A small amount of sage grouse habitat would be lost during development. The well would be tested for water quality changes. The economic health of the county would improve with additional development in the area.

2. The degree to which the Proposed Action affects public health or safety.

Prevailing winds would generally carry emissions away from the ranches and at the current well densities in the area, the well would not be expected to produce sufficient concentrations even in the low lying river bottoms to impact these ranches. Construction would create some fugitive dust but the project proponent plans on using water to control emissions when necessary. The small amount of dust and its short duration would not impact air quality in

the area. Hazardous wastes should not be a concern, but if a spill does occur, the proponent would be responsible for immediate remediation.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There are no cultural resources, park lands, prime farmlands, wetland, wild and scenic rivers or ecologically critical areas within the project area.

4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial.

The federal action of issuing a permit to drill for oil and gas resources has been routinely analyzed in site-specific EAs as well as at the EIS level during land use planning. No public comments have been received to indicate the possible effects of the Proposed Action would be controversial.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk.

No highly uncertain or unknown risks to the human environment were identified during analysis of the Proposed Action. Risk of harm to human health or the environment would be substantially reduced if the design features are properly implemented and/or adhered to.

6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. The federal action of issuing a permit to drill for oil and gas resources has been routinely analyzed in site-specific EAs and discussed in the 1984 Kremmling ROD/RMP.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

This action is not related to other actions with individually insignificant but cumulatively significant impacts.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

There are no known cultural resources that would be affected by the Proposed Action. Standard cultural conditions of approval would be applied to minimize risk to any previously undiscovered resources.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973.

There are no endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Neither the Proposed Action nor impacts associated with it violate any laws or requirements imposed for the protection of the environment.

SIGNATURE OF AUTHORIZED OFFICIAL: ____/s/ Susan Cassel_____
Acting Field Manager

DATE SIGNED: 1/8/13

**U.S. Department of the Interior
Bureau of Land Management
Kremmling Field Office,
P O Box 68
Kremmling, CO 80459**

DECISION RECORD

PROJECT NAME: EOG Application for Permit to Drill (APD) Peterson Ridge 01-20H

ENVIRONMENTAL ASSESSMENT NUMBER: DOI-BLM-LLCON02000-2012-0021-EA

DECISION

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-2012-0021-EA, authorizing the construction of the 01-20H well pad and the drilling, operating, and maintenance of 01-20H well.

Mitigation Measures/Monitoring:

Paleontological monitoring will be required during construction of the well pad, access road and reserve pit because of the surface/near surface exposures of Coalmont formation bedrock and high potential for discovery of significant fossil resources. Monitoring is defined here as having a qualified and BLM permitted paleontologist present during 100% of ground disturbing activities. Monitoring will be completed by the proponent and their paleontological contractor.

COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN

This decision is in compliance with the Federal Land Management and Policy Act, the Endangered Species Act, and the National Historic Preservation Act. It is also in conformance with the December 19, 1984; Updated February 1999 Kremmling Resource Management Plan (RMP).

ENVIRONMENTAL ANALYSIS AND FINDING OF NO SIGNIFICANT IMPACT

The Proposed Action was analyzed in DOI-BLM-CO-2012-0021-EA and it was found to have no significant impacts, thus an EIS is not required.

PUBLIC INVOLVEMENT

On-site review was attended by BLM Kremmling Field Office (KFO) staff specialists Bill Wyatt, Archeologist; Megan McGuire, Wildlife Biologist; Hannah Schechter, Visual Resources; and Kelly Hodgson; Natural Resource Specialist. Robert Wilkins and Jennifer Yu represented EOG, along with EOG contracted surveyor's Loren Shanks and Kevin Haas. Liza Rossi from Colorado Parks and Wildlife was also in attendance. Letters were also sent to five American Indian tribes.

RATIONALE

Analysis of the Proposed Action has concluded that there are no significant negative impacts and that it meets Colorado Standards for Public Land Health. Authorization to drill the proposed 01-

20H well would allow for the recovery of fluid mineral resources while minimizing surface disturbance.

ADMINISTRATIVE REMEDIES

State Director Review

Under regulations addressed in 43 CFR 3165.3(b), any adversely affected party that contests a decision of the Authorized Officer may request an administrative review, before the State Director, either with or without oral presentation. Such request, including all supporting documentation, shall be filed in writing with the BLM Colorado State Office at 2850 Youngfield Street, Lakewood, Colorado 80215 within 20 business days of the date such decision was received or considered to have been received. Upon request and showing of good cause, an extension may be granted by the State Director. Such review shall include all factors or circumstances relevant to the particular case.

Appeal

Any party who is adversely affected by the decision of the State Director after State Director review, under 43 CFR 3165.3(b), of a decision may appeal that decision to the Interior Board of Land Appeals pursuant to the regulations set out in 43 CFR Part 4.

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Susan Cassel
Acting Field Manager

DATE SIGNED: 1/8/13

Attachment #1

**CONDITIONS OF APPROVAL FOR APPLICATIONS FOR PERMIT TO DRILL
(APDs)**

Operator: EOG Corporation

The Bureau of Land Management, Kremmling Field Office, address and telephone contacts are:

Address:	2103 E. Park Ave. PO Box 68 Kremmling, CO, 80459
Office Phone:	(970) 724-3000 Fax: (970) 724-3066
Natural Resource Specialist:	Kelly Elliott, Office Phone (970) 724-3015

The Bureau of Land Management, Little Snake Field Office, address and telephone contacts are:

Address:	455 Emerson Street. Craig, CO, 81625
Office Phone:	(970) 826-5000 Fax: (970) 826-5022
Petroleum Engineer:	Edward O'Mara, Office Phone (970) 826-5028
Assistant Field Manager	Timothy Wilson, Office Phone (970) 826-5099

All lease and/or unit operations are to be conducted in such a manner to ensure full compliance with the applicable laws, regulations (43 CFR Part 3160), Onshore Oil and Gas Orders No. 1, 2, 3, 4, 5, 6 and 7, Notice to Lessees, and the approved plan of operations. Approval of this application does not relieve you of your responsibility to obtain other required federal, state, or local permits. A copy of the approved Form 3160-3 and the pertinent drilling plan, along with any advisory narratives and conditions of approval, shall be available at the drillsite to authorized representatives at all times. The operator is considered fully responsible for the actions of his subcontractors.

Your review and appeal rights are contained in 43 CFR 3165.3 and 3165.4.

CONDITIONS OF APPROVAL

STANDARD CONDITIONS

1. The Kremmling Field Office and the Little Snake Field Office (970) 826-5000 will be given 48-hour notification prior to commencing construction and/or reclamation work.
2. Notify Little Snake Field Office at (970) 826-5000 at least **48-hours** in advance to witness running and cementing of surface casing and testing of the BOPE.
3. The notice of spud will be reported orally to the Little Snake Field Office at (970) 826-5000 at least **48-hours** after spudding. This notice shall include spud date, time, details of spud (hole, casing, cement, etc.), API well number, and date the rotary rig was moved on location. If the spudding occurs on a weekend or holiday, wait until the following regular workday to make this report. The oral notice shall be followed by written notification within 5 working days.
4. No hazardous materials, hazardous wastes, or trash will be disposed of on public lands or on private surface overlying the oil and gas lease. If a release does occur, it will be reported to the Kremmling Field Office immediately at (970) 724-3000.
5. The wellsite disturbance area will be brush cleared and topsoil salvaged before any excavation or fill commences.
6. All survey stakes representing the leveled drill pad, the crest of excavations, the toe of embankments, the reserve pit, and the access road will be in place prior to construction. Staking shall include the well location, two 200-foot directional reference stakes, the exterior dimensions of the drill pad, reserve pit and other areas of surface disturbance, cuts and fills, and centerline flagging of new roads with road flagging being visible from

one to the next.

7. Construction activities will not be allowed to commence if the topsoil cannot be separated from the subsoil during adverse environmental conditions (i.e. when soils are frozen or muddy).
8. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
9. Drainage for runoff water will be provided to divert runoff water away from the reserve pit, cut and fill portions of the well location and the topsoil stockpile. Runoff water that concentrates and forms rills on the well location will be diverted and/or dispersed to prevent erosion of the fill slopes. Any ditches designed to provide runoff drainage will be constructed on a minimal grade and will release water onto undisturbed ground without causing accelerated erosion. The operator will take additional measures if erosion is occurring within the runoff water drainage system.
10. If fossils are discovered during construction or other operations, all activity in the area will cease and the Field Office Manager will be notified immediately. An assessment of significance will be made within an agreed timeframe. Operations will resume only upon written notification by the Authorized Officer.

STANDARD STIPULATIONS

11. If cultural or paleontological resources are discovered during exploration operations under this license, the licensee shall immediately notify the Field Officer Manager and shall not disturb such discovered resources until the Field Officer Manager issues specific instructions.
 - a. Within 5 working days after notification, the Field Office Manager shall evaluate any cultural resources discovered and shall determine whether any action may be required to protect or to preserve such discoveries.
 - b. The cost of data recovery for cultural resources discovered during exploration operations shall be borne by the licensee, if the licensee is ordered to take any protective measures. Ownership of cultural resources discovered shall be determined in accordance with applicable law.
 - c. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the Authorized Officer at (970) 724-3000. Within five working days the Authorized Officer will inform the operator as to:
 1. Whether the materials appear eligible for the National Register of Historic Places;
 2. The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again and,
 - d. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation, and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the operator will then be allowed to resume construction.
 - e. Pursuant to 43 CFR 10.4(g) (Federal Register Notice: Monday December 4, 1995, Vol 60, No. 232) the holder of this authorization must notify the Authorized Officer, by telephone (970) 724- 3000, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the Authorized Officer.

12. The reserve pit will be designed to exclude runoff water and maintain a 2-foot freeboard between the maximum fluid level and the lowest point of containment. The reserve pit will not be used for disposal of any materials or fluids, except for materials or fluids specifically addressed in the drilling program or having a subsurface origin. If oil or oily substance is in the reserve pit, it must be removed within 30 days after the drilling rig is removed. Netting will be installed if oily substance is present in the reserve pit.
13. The perimeter of the reserve pit and production pits, if any, will be fenced with woven wire with 2 strands of barbed wire, properly spaced, on the top and all held in place by side posts and corner H-braces to inhibit entry by livestock and wildlife. The fence will be maintained until backfilling or removal of facilities occurs.
14. In the event downhole operations threaten to exceed the required 2-foot freeboard, regarding reserve pit fluids, immediate notification will be provided to the Authorized Officer with concurrent steps taken to minimize the introduction of additional fluids, until alternative containment methods can be approved.
15. Reserve pit fluids will be allowed to evaporate through one entire summer season (May-September) after drilling is completed, unless an alternative method of disposal is approved. After the fluids evaporate, the reserve pit mud will be allowed to dry sufficiently to allow backfilling. The backfilling of the reserve pit will be completed within 30 days after dry conditions exist and will meet the following minimum requirements:
 - a. Backfilling will be done in such a manner that the mud and associated solids will be confined to the pit and not squeezed out and incorporated in the surface materials.
 - b. There will be a minimum of 5 feet of cover, or return to approximate original contour on the pit.
 - c. When the work is completed, the pit areas will support the weight of heavy equipment without sinking and over time shall not subside over 6-inch depth.
16. If installed, production facilities will be located on cut portions of the existing drill pad.
17. In the event production is established, all land surfaces that are to remain free of vegetation (roads and well location) will be monitored for and protected from wind erosion; dry powdery soil will be treated to minimize wind erosion.
18. Prior approval is required to remove reserve pit fluids from the reserve pit; a request of this type will need to include the destination of the fluids and if the destination is not a State approved facility, the request will include State approval of the destination. Fluids may be moved to another reserve pit within the same field with verbal approval of the authorized officer.
19. All pits, cellars, rat holes and other bore holes unnecessary for further lease operations, excluding the reserve pit, will be backfilled immediately after the drilling rig is released. Pits, cellars and/or bore holes that remain on location must be fenced as specified for the reserve pit in the applicant's Surface Use Plan.
20. In the event a producing well is established, all new production equipment which has open-vent exhaust systems will be constructed in such a way to prevent the entry and perching of birds and bats.
21. All permanent structures (on-site for six months or longer) constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with OSHA (Occupational Safety and Health Act) will be excluded.
22. Surface facilities should appear to blend in to the existing landscape to the greatest possible extent. Facilities should not be located on ridgelines or extend above them. Facilities should be minimal in size (or located underground) and colored and texture to blend in with the surroundings.
23. A containment berm must be installed around all storage tanks, including temporary tanks. Compaction and construction of the berm surrounding the tank or tank battery will be designed to prevent lateral movement of fluids through the utilized materials, prior to storage of fluids. The berm must be constructed to contain at minimum 10 percent of the storage capacity of the largest tank within the berm. All loading lines will be placed inside the berm.

24. Control of noxious weeds will be required through successful vegetation establishment and/or herbicide application. It is the responsibility of the lease operator to insure compliance with all local, state, and federal laws and regulations, as well as labeling directions specific to the use of any given herbicide.

RECLAMATION PERFORMANCE STANDARDS

25. The lessee is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of a self-regenerating permanent vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the Authorized Officer but normally will be the same as adjoining uses.

Reclamation practices which must be applied or accomplished are: re-grading to the approximate original contour, effectively controlling noxious weeds, separating, storing and protecting topsoil for redistribution during final abandonment, seeding and controlling erosion. If topsoil is not present, or quantities are insufficient to achieve reclamation goals, a suitable plant growth media will be separated, stored and protected for later use. Reclamation will begin with the salvaging of topsoil and continue until the required standards are met. Topsoil that is stored for 1 year or longer will be seeded with naturally occurring species to retain topsoil vigor. If use of the disturbed area is for a short time (less than one year), practices which ensure stability will be used as necessary during the project, and reclamation, with the exception of vegetative establishment, will be completed within one year. If use of the area is for greater than one year, interim reclamation is required on the unused areas. Interim reclamation of the unused areas will begin immediately upon completion of the permanent facility(s).

For both short and long term projects vegetative establishment will be monitored annually. If the desired vegetation is not established by the end of the second growing season, practices necessary for establishment will be implemented prior to the beginning of the next growing season. Interim reclamation, unless otherwise approved, will require meeting the same standards as final abandonment with the exception of original contour.

Annual reports consisting of reclamation practices completed and the effectiveness of the reclamation will be provided to the Kremmling Field Office. The first report will be due in January following initiation of reclamation practices and annually thereafter until final abandonment is approved.

There are numerous reclamation practices and techniques that increase the success rate of reclamation and stabilization. With the exception of those stated above, it is the lessee's prerogative to use those they choose to accomplish the objective. Additional site specific mitigations may be specified and required. However, it is recommended that state-of-the-art reclamation, stabilization, and management practices be used to achieve the desired objective in a timely and cost-effective manner.

The following definitions and measurements will be used to accomplish and determine if reclamation has been achieved:

Permanent vegetative cover will be accomplished if the basal cover of perennial species, adapted to the area, is at least ninety (90) percent of the basal cover of the undisturbed vegetation of adjoining land or the potential basal cover as defined in adjacent undisturbed areas.

Diversity will be accomplished if at least two (2) perennial genera and three (3) perennial species that are adapted to the area make up the basal cover of the reclaimed area in precipitation zones thirteen (13) inches or less. One species will not make up more than fifty (50) percent of the perennial vegetation by basal cover.

Self-regeneration and adaptation to the area will be evident if the plant community is in good vigor, there is evidence of successful reproduction, and the species are those commonly found in the area.

Surface stability will be accomplished if soil movement as measured by deposits around obstacles, depths of truncated areas, and height of pedestalling, is not greater than three tenths (0.3) of an inch and if erosion channels (rills, gullies, etc.) are less than one (1) inch in depth and at intervals greater than ten (10) feet.

If this standard is not met by the end of the second growing season, two alternatives exist depending on the severity of the erosion:

If erosion were greater than two (2) times the allowable amount, corrective action would have to be taken by the responsible company at that time;

If erosion is less than or equal to two (2) times the allowable amount, and it is determined the erosion occurred during vegetative establishment and the site may become stable, no corrective action would be required at that time. Another measurement would be performed a year later to determine if stability standards had been met. If the original measurements have not increased by more than the allowed standard, the standard would be considered met. However, if the increase were greater than the allowed standard, corrective action would be required.

Subsurface stability (mass wasting event) is of concern if disturbance has included excavation over four (4) feet in depth and greater than 10,000 square feet in area on slopes thirty five (35) percent and greater, or on any erosion-prone slope. When these conditions occur, length of liability for reclamation and final abandonment will continue for ten (10) years following re-contouring to original contour or for such time that climatic patterns provide two (2) consecutive years in which measurable precipitation totals at least 120 percent of average from October 1 through September 30, as measured by data averaged from nearby regional weather stations. The Authorized Officer may waive this stipulation, or portions of it. Such waiver will be documented and justified when not applicable, or when objectives are accomplished through another method.

SITE SPECIFIC CONDITIONS

- If the Surface Use Plan, submitted to the Kremmling Field Office as part of the applications, is altered, the authorized officer must be contacted.
- The applicant is responsible for obtaining a stormwater permit from the state, and for securing a legal water source.
- All sagebrush or woody biomass material generated from road access and well pad construction should be masticated and spread to a depth of no deeper than 3” in any one location. A contact list will need to be given to Craig Dispatch Center (455 Emerson Street Craig CO, 81625 Phone number 970-826-5037) in case of a wildfire where personal would need to be evacuated.

REGULATORY REMINDERS

- A. This permit is valid for a period of one year from the date of approval. Any requests for extensions must be submitted prior to the end of the one-year period. If the permit terminates, any surface disturbance created under the permit must be rehabilitated in accordance with the approved plan within 90 days of termination, unless otherwise approved by the Authorized Officer. An expired permit may be reinstated at the Authorized Officer's discretion; however, future operations may require a new application be filed for approval.
- B. All drilling operations, unless otherwise specifically approved in the APD, must be conducted in accordance with Onshore Oil and Gas Order No. 2; Drilling Operations.
- C. All 7-Day Requirement responses are made part of this APD.
- D. There shall be no deviation from the proposed drilling and/or workover program as approved, without prior approval from the Kremmling and Little Snake Field Offices. Safe drilling and operating practices must be observed.
- E. Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease, which would entitle the applicant to conduct operations thereon.
- F. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the Kremmling and Little Snake Field Offices. If operations are to be suspended for more than 30 days, prior approval for certain well

operations must be obtained and notification given before resumption of operations in accordance with 43 CFR 3162.3-2 and 3162.3-4.

- G. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval for subsurface abandonment operations may be granted by the Little Snake Field Office. Oral approvals must be confirmed in writing (Notice of Intention to Abandon (Form 3160-5)) within 15 days. Unless the plugging is to take place immediately upon receipt of oral approval, the appropriate resource area must be notified at least 48 hours in advance of the plugging of the well, in order to provide a representative the opportunity to witness plugging operations.
- H. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) must be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with Onshore Oil and Gas Order No. 1. Daily drilling reports, a copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations (with Form 3160-4) will be filed and sent to the Little Snake Field Office, 455 Emerson Street, Craig, Colorado 81625. Samples (cuttings, fluid, and/or gas) will be submitted only when requested by the Authorized Officer.
- I. Section 102 (b) (3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1 (c), requires that "not later than the fifth business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, or the date on which such production has begun or resumed."

The date on which a well commences production, or resumes production after having been off production for more than 90 days is to be construed as follows:

- 1. For an oil well, the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank or the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever occurs first;
- 2. For a gas well, that date on which gas is first measured through sales metering facilities or the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, whichever occurs first. For purposes of this provision, a gas well shall not be considered to have been off production unless it is incapable of production.

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c) (3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3163.2(e) (2).

- J. This APD is approved subject to the requirement that, should the well be successful (completed for production or recompleted for production in a new interval), the Little Snake Field Office must be notified when it is placed in a producing status. Such notification may be provided orally if confirmed in writing, and must be received in the Little Snake Field Office by not later than the 5th business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following information items:
 - 1. Operator name
 - 2. Well name, number, and location
 - 3. Date well was placed on production
 - 4. The lease, or communitized tract, or unit participating area to which the well's production is attributable.
- K. A separate Monthly Report of Operations, Form 3160-6, shall be submitted for each lease, unit participating area, or communitization agreement, beginning with the month in which drilling operation commence, in accordance with 43 CFR 3162.4-3. This report shall be sent to Minerals Management Service, Production Accounting Division, P.O. Box 17110, Denver, Colorado 80217.

- L. If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental or other financial obligation determined by the Authorized Officer.
- M. All produced liquids must be contained, including the dehydrator vent/condensate line effluent. All production pits must be bermed and fenced.
- N. Gas produced from this well may not be vented or flared beyond an initial, authorized test period of 30 days or 50 MMCF following completion, whichever comes first, without the prior written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, you may be directed to shut the well in until the gas can be captured or approval to continue venting or flaring is granted and you may be required to compensate the lessor for that portion of the gas that was vented or flared without approval which is determined to have been avoidably lost.
- O. Produced water from newly completed wells may be temporarily disposed of into the reserve pit for a period of up to 90 days. During the 90-day periods, an application for approval of a permanent disposal method and location will be submitted according to Onshore Order No. 7 for approval.
- P. A schematic facilities diagram as required by CFR 43, Part 3162.7-5, shall be submitted to the Little Snake Field Office within 60 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 3162.7-5(b).
- Q. The permit holder is required to use certified weed free hay, straw and mulch on BLM lands in Colorado should the use or storage of hay, straw or mulch be necessary. Any person who knowingly and willfully violates this regulation may be subject to a fine of not more than \$1,000 or imprisonment of not more than 12 months, or both as defined in 43 USC 1733(a).

Attachment #2

Seed Mix

Drill Seeding Rate		
<u>SEED NAME</u>	<u>Application Rate</u> PLS/Acre	<u>Seeds/SQ. FT.</u>
Grasses		
Western wheatgrass Pascopyrum smithii, variety. Arriba	2.97	7.5
Thickspike Wheatgrass Elymus lanceolatus var. Critana	2.13	7.5
Bluebunch wheatgrass Pseudoroegneria spicata, var. Secar (Alternate var. Goldar)	2.51	7.5
Sheep fescue Festuca ovina, var. Covar	.62	7.5
Totall	8.23	30
Forbs		
Alfalfa var. Ladak	.73	3.5
Big sagebrush Artemisia tridentata ssp. wyomingensis	.06	3.5
Total	.79	7

- * Big sagebrush and Alfalfa may be seeded when it would be better for success
- * Broadcast seeds at twice the rate

(Seed tags must be submitted to BLM after seeding.)

*** do not seed prior to October 1, to avoid sprouting.**

MULCH

Native Hay or Straw 2,000 lbs. X acres =

- Mulch is optional but it will help reclamation results.
- Must be Certified Noxious Weed Free

Appendix 1

INTERDISCIPLINARY TEAM ANALYSIS REVIEW RECORD AND CHECKLIST:

Project Title: EOG APD

Project Leader: Kelly Elliott

Consultation/Permit Requirements:

Consultation	Date Initiated	Date Completed	Responsible Specialist/ Contractor	Comments
Cultural/Archeological Clearance/SHPO	NA		BBW	Cultural inventory report CR-12-20 stated no sites were found. The proposed actions are a “no effect,” there are no historic properties that would be affected.
Native American	8/29/2012		BBW	To date no Native American tribe has identified any areas of traditional spiritual concern within the project locations.
T&E Species/FWS	N/A	N/A	M.McGuire	
Permits Needed (i.e. Air or Water)		7/20/12	P. Belcher	The applicant is responsible for obtaining a stormwater permit from the state, and for securing a legal water source. The water depletion is covered by Jackson County’s SPWRAP membership.

(NP) = Not Present

(NI) = Resource/Use Present but Not Impacted

(PI) = Potentially Impacted and Brought Forward for Analysis.

NP NI PI	Discipline/Name	Date Review Comp.	Initials	Review Comments (required for Critical Element NIs, and for elements that require a finding but are not carried forward for analysis.)
PI	Air Quality Belcher	7/20/12	PB	See write-up
NP	Areas of Critical Environmental Concern McGuire	8/30/12	MM	There are no Areas of Critical Environmental Concern in the proximity of the proposed project area.
NP	Cultural Resources Wyatt	8/29/2012	BBW	No cultural resource sites were located. The project is a “no effect,” there are no historic properties that would be affected.
NP	Environmental Justice Cassel	8/29/12	SC	According to the most recent Economic Census Bureau statistics (2009), there are minority and low income communities within the Kremmling Planning Area. There would
NP	Farmlands, Prime and Unique Belcher	7/20/12	PB	There are no prime or unique farmlands that would be impacted. Farmlands of state or local importance are near the project and are not expected to be impacted.
NI	Floodplains Belcher	7/20/12	PB	The proposed well pad and road are located in upland areas and are not within the floodplain.
NP	Invasive, Non-native Species Hughes	09/04/12	ZH	There are currently no invasive or non-native species threatening the project area. Under the design features of the proposed action EOG Resources, Inc. would be responsible for monitoring and controlling any invasive species

				found.
NI	Migratory Birds McGuire	8/30/12	MM	There would be no direct or indirect impacts to migratory birds from the proposed action alternative or the no action alternative.
NI	Native American Religious Concerns Wyatt	8/29/2012	BBW	To date no native American tribe has identified any areas of spiritual concern within the project locations.
PI	T/E, and Sensitive Species (Finding on Standard 4) McGuire	8/30/12	MM	See analysis in EA.
PI	Wastes, Hazardous and Solid Elliott	9/10/12	KE	See analysis in EA.
PI	Water Quality, Surface and Ground (Finding on Standard 5) Belcher	7/20/12	PB	See write-up.
NI	Wetlands & Riparian Zones (Finding on Standard 2) Belcher	7/20/12	PB	The well and road are located out of any riparian or wetland zones. No indirect impacts are expected.
NP	Wild and Scenic Rivers Schechter	8/30/12	SC	There are no eligible Wild and Scenic River segments in the proposed project area.
NP	Wilderness Monkouski	8/30/2012	JJM	There is no designated Wilderness or Wilderness Study Areas in the proposed project area. The area does not possess wilderness characteristics.
PI	Soils (Finding on Standard 1) Belcher	7/20/12	PB	See Soils Section.
PI	Vegetation (Finding on Standard 3) Tibbs	9/10/2012	NT	See vegetation section
NP	Wildlife, Aquatic (Finding on Standard 3) McGuire	8/30/12	MM	No aquatic wildlife present on the proposed well sites and roads.
NI	Wildlife, Terrestrial (Finding on Standard 3) McGuire	8/30/12	MM	Animals may temporarily avoid the project area during and after operations due to noise, increased activity, and unfamiliar surroundings. The Proposed Action would not result in any major direct, indirect or cumulative impacts to the area's terrestrial wildlife. In the No Action Alternative, if the application was denied big game winter range would not be disturbed and wildlife would not be disturbed or harassed
NI	Access/Transportation Monkouski	8/30/2012	JJM	The proposed new road would remain open to the public; hence there would be no impact to access of the area within the proposal. Once the well is abandoned the road and pad areas would be obliterated and reclaimed.
NI	Fire Thompson	9/13/2012	KKT	All sagebrush or woody biomass material generated from road access and well pad construction should be masticated and spread to a depth of no deeper than 3" in any one location. A contact list will need to be given to Craig Dispatch Center (455 Emerson Street Craig CO, 81625 Phone number 970-826-5037) in case of a wildfire where personal would need to be evacuated.
NP	Forest Management Belcher	8/29/12	KB	There are no impacts to Forest Resources.
NI	Geology and Minerals Elliott	9/10/12	KE	The proposed casing and cementing programs follow Onshore Order #2 and appear to be adequate to protect and/or isolate all resources.
NI	Hydrology/Water Rights Belcher	7/20/12	PB	Hydrology impacts are in the Soils and Water

				Quality sections. The applicant would secure the use of private or municipal water rights, which are administered by the state of Colorado and not by the BLM.
PI	Paleontology Wyatt	8/29/2012	BBW	Fossilized wood was the only fossil discovery on the surface. However, because of the surface/near surface exposures of Coalmont formation bedrock and high potential for discovery of significant fossil resources, paleontological monitoring would be required during construction of the well pads, access roads and reserve pits. Monitoring is defined here as having a qualified and BLM permitted paleontologist present during 100% of ground disturbing activities. Monitoring would be completed by the proponent and their paleontological contractor.
PI	Noise Monkouski	8/30/2012	JJM	See analysis in EA.
NI	Range Management Tibbs	9/10/2012	NT	Cattle guards would be installed for access locations on BLM access grazing allotments. The loss of vegetation would not affect AUM allocation for this allotment #7081.
NI	Lands/ Realty Authorizations Sperandio	8/30/2012	AS	There are no leases or permits in the location of the proposed action. There are three ROW's: Centurytel phone line (COC-56807), Centurytel buried phone line (COC-25110), and CDOT for HWY 14 (COC-022753). There would be no impacts from the proposed action or the no action alternative.
NI	Recreation Monkouski	8/30/2012	JJM	Existing recreational uses in the general area include hunting; wildlife viewing; and driving for pleasure. The project area is currently classified as 'Open' in the Off-Highway Vehicle plan adopted in 1988. Motorized vehicle traffic is encouraged to remain on existing, well defined roads and trails. Cross country travel is discouraged to protect vegetation, soil, visual, and wildlife values. There are no known conflicts with recreation management sections of the RMP and there are no recreation activity plans or other special recreation designations for this area. The Proposed Action or the No Action Alternative would not cause any impacts to the recreation resource.
NI	Socio-Economic Cassel	8/30/12	SC	There is always an economic benefit to the county when wells are drilled and to the State when production occurs. This benefit would not occur with the no action alternative.
NI	Visual Resources Elliott	9/16/12	KE	The proposed developments are within VRM class III. The proposed access road and well pad would be visible from Hwy 14, but the level of change to the landscape would be moderate to low. The development would attract the attention of the casual observer, but would not dominate the landscape. The proposed action would be consistent with VRM

				Class III objectives. Under the No Action Alternative BLM would deny EOG the proposed well-site development and the associated access road and there would be no impacts to visual resources.
NI	Cumulative Impact Summary Cassel			See Analysis in EA
	Field Manager D. Stout			

Appendix 2

NATIVE AMERICAN TRIBES CONTACTED:

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Shoshone Tribe, Cultural Center
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Gary Hayes, Chairman
Ute Mountain Ute Tribe
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Mr. Terry Knight, Sr., THPO Director
Ute Mountain Ute Tribe
P O Box 468
Towaoc, CO 81334

Jim Shakespeare, Chairman
Northern Arapaho Business Council
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Darlene Conrad, THPO Director
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